

# Viruses & Allergies & Vaccines

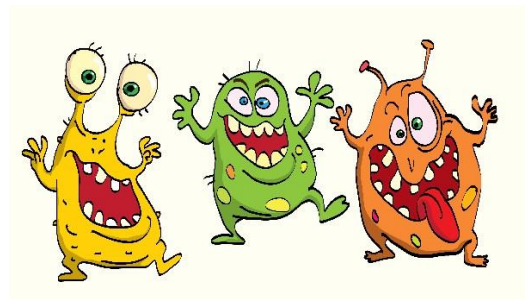
## PATHOGENS

What is the difference between BACTERIA and VIRUSES?

### HOW BACTERIA WORK:

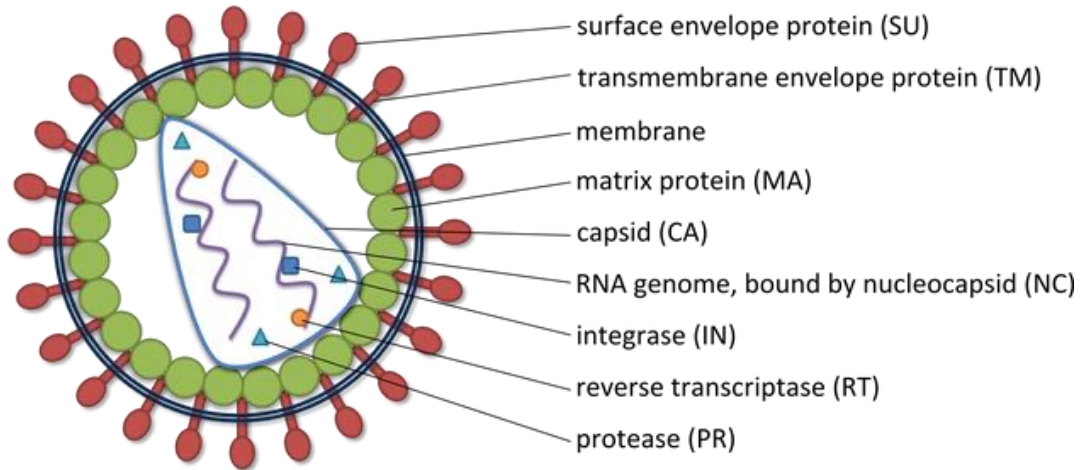
- Bacteria grow and divide inside \_\_\_\_\_
- When 1 harmful bacteria start to outnumber other safe bacteria, this causes a problem
- Release \_\_\_\_\_

### EXAMPLES OF HARMFUL BACTERIA:



### The STRUCTURE of a VIRUS:

1. \_\_\_\_\_
2. \_\_\_\_\_
3. \_\_\_\_\_
4. \_\_\_\_\_



## VIRUS INVASION!!

- \_\_\_\_\_
- Cell mistakes virus for \_\_\_\_\_
- Virus gives its' "instructions" to the cell to \_\_\_\_\_  
\_\_\_\_\_.
- New viruses \_\_\_\_\_
- \_\_\_\_\_



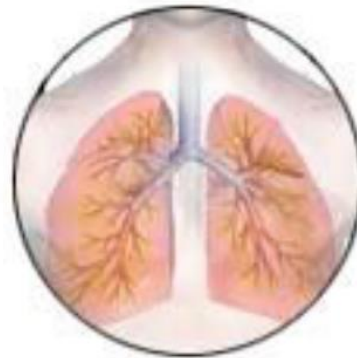
## WHAT ARE ALLERGIES?

YOUR ANSWER:

OUR CLASS ANSWER:

- Allergies range from mild to severe
- \_\_\_\_\_ most severe

### Anaphylaxis



A severe type of allergic reaction that involves two or more body systems (e.g., hives and difficulty breathing).

### ALLERGENS

- \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_



## THE STEPS OF ALLERGIC REACTIONS:



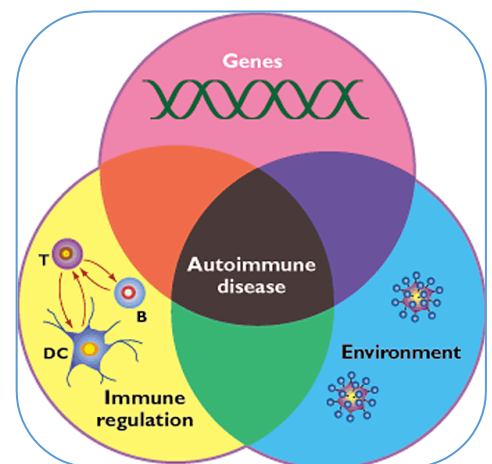
## AUTOIMMUNE DISEASES

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- Immune system does NOT distinguish between

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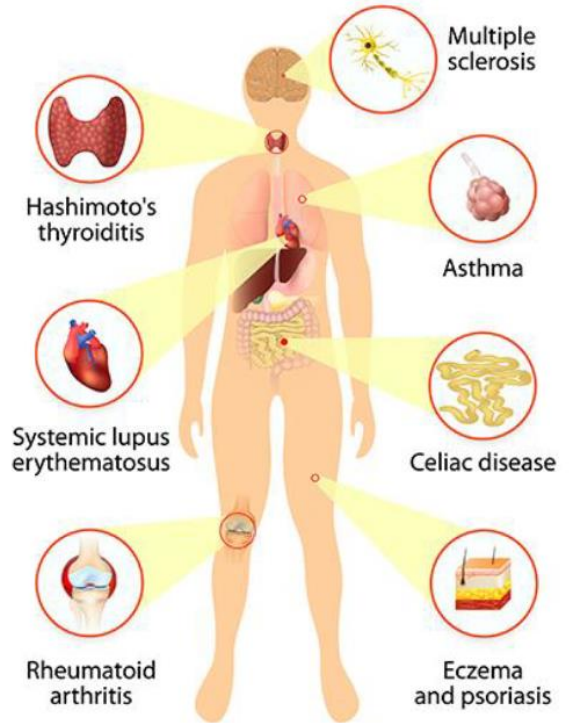
## SYMPTOMS

- \_\_\_\_\_
- Fever
- \_\_\_\_\_
- General ill feeling
- \_\_\_\_\_

## LUPUS

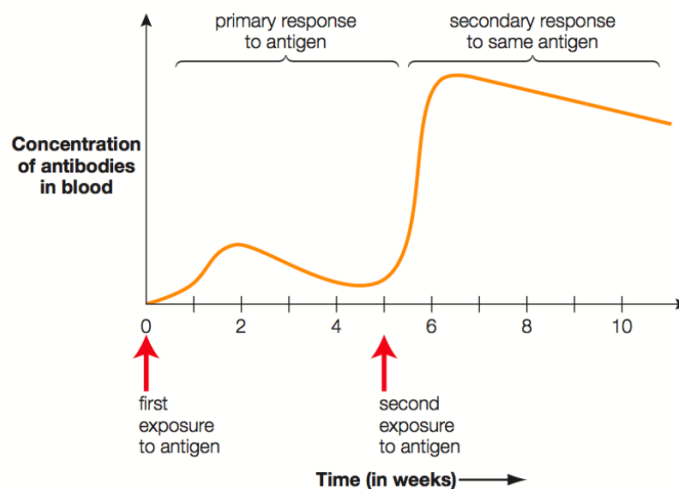
- \_\_\_\_\_
- Joints, skin, kidneys, blood, heart, lungs
- \_\_\_\_\_
- \_\_\_\_\_
- More common in \_\_\_\_\_ (90%)
- Diagnosed between ages \_\_\_\_\_

## AUTOIMMUNE DISEASES



## VACCINES

PRIMARY RESPONSE	SECONDARY RESPONSE:
<ul style="list-style-type: none"> <li>• _____ to antigen</li> <li>• _____ amount of antibody produced</li> <li>• _____</li> <li>• _____ days to peak</li> </ul>	<ul style="list-style-type: none"> <li>• _____ immunization with same _____</li> <li>• Greater amount of _____</li> <li>• Peaks quicker (_____)</li> <li>• Lasts longer (_____)</li> </ul>



## THE VACCINE DEBATE

**AGAINST**

**FOR**

**MY THOUGHTS...**